Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20024

In the Matter of	)	
	)	
Amendment of Part 74 of the Commission's	)	
Rules Regarding FM Translator Interference	)	MB Docket 18-119
	)	
	)	

To: The Commission:

COMMENTS

Comes now Charles M. Anderson, licensee of broadcast stations, translators and broadcast engineering consultant with comments generally supporting the Commission proposals in MB Docket No. 18-119 regarding FM translator interference. It is noteworthy that the Commission recognizes that FM translators, while remaining secondary to full power stations, have evolved into a vital segment of the radio broadcasting service preserving and expanding AM service, particularly at night, and providing program diversity through rebroadcast of HD2 and HD3 signals, and therefore deserving of some additional certainty and protection from specious interference complaints.

I. Non-adjacent channel changes as minor changes:

The Commission proposes to permit FM translators to change to non-adjacent channels as a minor change to resolve caused or received interference issues. We support this change. This flexibility would have allowed the timely resolution of interference complaints in several instances. At the same time, there are situations where the amount of received interference degrades the ability of a translator to serve its intended area, especially AM fill-in translators. In those cases, we propose that the Commission utilize the procedure it has routinely used for LPFM showings and grant a non-adjacent channel change where the proposed 60 dBu service area on the new channel receives substantially less interference than the existing 60 dBu contour as determined by either Longley-Rice or standard FCC methodology. It is noted that same class, non-adjacent channel changes are already permitted full-service FM stations.

II. Interference Showing:

The Commission has proposed the use of U/D methodology based on standard FCC prediction to establish whether interference exists at the site of an interference complaint. We support that methodology. It has proved to be a dependable tool for more than fifty years in full power FM allocations and is not subject to the

manipulation possible in other prediction algorithms. In many cases, this will permit a translator to reduce power or employ a directional antenna to resolve complaints.

The interference complaint contour limit should be set as the Commission proposes at 54 dBu for co-channel and 60 dBu for all adjacent channels in Zone II and 54 dBu co-channel and class specific contours for all adjacent channels in other zones. The selectivity of modern FM receivers has greatly mitigated the potential for 1st adjacent channel interference and provides a method for the listener to readily resolve those issues[1]. No interference complaints should be entertained for 2nd and 3rd adjacent channels beyond the current class protected contours. Any change in the 2nd and 3rd adjacent channel protection requirements would be especially disruptive putting many translators at risk. Such interference is now virtually non-existent.

The FM band is mature and even in its most congested area , the northeastern United States, functions well despite many grandfathered short-spacings, Adding a -6 dB co-channel buffer to preserve out of contour listening seems a very reasonable accommodation. For example, if an existing translator's 40 dBu (50:10) interference contour is now tangent to a complaining co-channel station's 60 dBu (50:50) contour and an interference complaint is lodged at the station's 54 dBu contour the translator will have to reduce power by approximately 10 dB to satisfy the complaint. Clearly, the use of any contour lower than 54 dBu will be devastating to a translator that can not change frequency.

We analyzed nine licensed translators serving the core Louisville, KY market to determine the impact of the proposed 54 dBu interference limit or a more stringent 48 dBu contour some might propose. It is noted that there are no other viable frequencies available for these translators. Three of the nine would require substantial degrading if interference complaints were lodged at a station's 54 dBu contour. However, eight of the nine would experience devastating power reductions that would essentially eliminate their service to the market if an interference complaint were lodged at a station's 48 dBu limit (report appended). Clearly, any contour limit below 54 dBu will have a seriously negative impact in larger markets where alternative frequencies are not available.

There are those who would seek protection of the 50 dBu or even the 40 dBu contour claiming listening far beyond the service areas assigned for their facilities. Such claims are mindful of the cattle barons of the old west who wanted to preserve grazing rights on all open land rather than permit settlers to erect fences to establish farms and homesteads. FM translators, especially those preserving and expanding the local service provided by heritage AM stations, are analogous RF homesteads using the wide open spectrum spaces to provide new and important local services.

FM band assignments are based entirely on protected contours. Stations were "allocated" finite service areas which were deemed sufficient to serve their purposes in the Commission's process establishing the current nationwide FM service (FCC

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[1] In the First Report and Order establishing the FM allocations separations (FCC 62-866) the Commission observed "……To sacrifice other important values, simply in order to base a plan on the cheapest and least satisfactory receivers would not serve the public interest. It would tend to remove any incentives for the development and purchase of better receivers (para 62)".

62-866)[2]. Coverage beyond these defined contours was not allocated or assigned but is, rather, the result of the randomness of the allocations process.

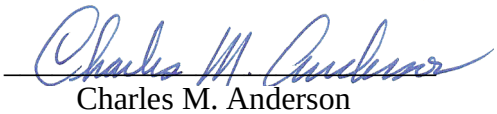
The Commission will undoubtedly receive audience data demonstrating station listener ship beyond their protected contours. However, based on experience, only a very small portion of those listeners are at risk of translator interference. It is noteworthy that licensees are reminded in their broadcast licenses that:

… the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described. … This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license … any other manner than authorized herein.

We conclude that the Commission's finite and generous 54 dBU contour limit proposal will protect broadcasters operating translators from the egregious expense and effort caused by those who game the current system claiming listeners up to 20 miles or more beyond the 60 dBu of a class A or up to 40 miles beyond the 60 dBu of a class C. At the same time, this more precise process should provide more timely relief for full service stations who actually suffer from interference to their local service generated by translators within or near their protected contours.

III. **The number of listener complaints should be at least six as the Commission proposes.** Furthermore**,** full documentation of their listening locations, addresses, and contact information should be supplied along with a certification that they have no connection with the station (full power, LPFM or translator) on whose behalf the complaint is lodged and that they listen to that station for at least one hour twice each week. The latter requirement is needed to prevent the gaming of the system by complainants who do not actually listen to a station regularly but who are simply accommodating the complaining station. The Commission should provide translator operators the opportunity to challenge the authenticity of such complainants in any process it adopts.

IV. **On-off tests are not definitive** absent an impartial, qualified observer. Therefore, the Commission should rely only on the U/D methodology to determine whether interference occurs.



Charles M. Anderson

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[2] This was to be large enough to permit the station an adequate basis of economic support and fulfill its particular function (coverage of a small city and suburbs, wide area rural coverage, or coverage of a small town and environs), and at the same time small enough to permit either co-channel or adjacent channel stations to be spaced sufficiently close so that an adequate number of assignments could be made (para 59).

……..

It was found that a reasonable compromise affording adequate protection on the one hand and yet a sufficient number of assignments is to provide protected service radii for the various classes….(class A 927 uV/m, Class B 562 uV/m and class C. 944 uV/m)(para 62)

LOUISVILLE, KY
TRANSLATOR ANALYSIS

Licensed FM translators serving the core Louisville market were analyzed to determine the change required to disprove an interference complaint based on U/D ratio lodged by their closest station at its 54 dBu or 48 dBu (50:50) contour.

Translator	Relevant station	54 dBu limit impact	48 dBu limit impact
W236AN (200W)	WIKI (1st adj)	55 Watts	2 Watts
W241CK 250W	WSTO (co)	OK	57W
W250BD 250W DA	WSLM (co)	OK	OK
W261CO 250W DA	WNGT (co)	50 Watts	3 Watts
W270CR 150W	WKRQ (co)	OK	22 Watts
W274AM 55 W	WOKH (1st adj)	OK	13 Watts
W284AD 99 Watts	WITZ-FM (co)	OK	6 Watts
W297BV	WRZI (co)	8 Watts	less than 1 Watt

Three of the nine would require substantial degrading if interference complaints were lodged at a 54 dBu. Eight of the nine would experience devastating power reductions if an interference complaint were lodged at a 48 dBu limit.